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MOTION PICTURE DIST. ASSOCIATION (India) Private Limited

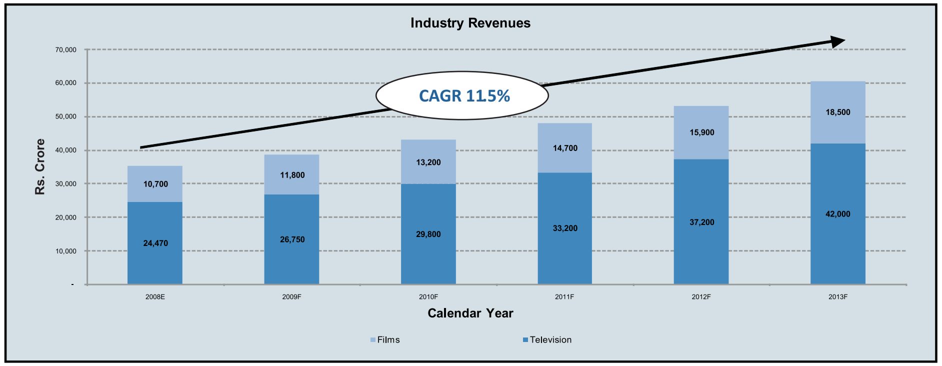
1. Executive Summary

This study on the "Economic Contribution of the Indian Film and Television Industry" has been conducted by Price waterhouseCoopers, for Motion Picture Distributors Association (India) ("MPDAI"), with the objective of highlighting the contribution of the film and television industry to the Indian economy. This overall contribution is based on the direct and indirect impact of the industry, on the economy, considering the spending, income and employment generated by the industry, and its effect on other related industries as well. The contribution has been estimated based on the financial performance of companies for the financial year 2008-09. **Please note the assumptions and limitations as specified in section 2 of this study.**

The key segments of the film and television industry covered in this study include:

1. Indian films
   - Hindi films
   - Key regional films
2. Indian television industry covering content production, broadcasting and distribution
3. U.S. /International films in India
4. Indian home video industry

The combined revenues of the Indian film and television industry were over Rs. 35,000 crores (USD 7.7 billion) in calendar year 2008. These are expected to grow at a CAGR of 11.5% over the period 2009 - 2013, reaching a size of over Rs. 60,000 crores (USD 13.2 billion).



Source: PricewaterhouseCoopers' Indian Entertainment & Media Outlook 2009

Figure 1: Revenue Projections for the Indian Film and Television Industry

To quantify the economic contribution of the film and television industry, the following four measures have been used:

- **Gross Output:** This represents the total value of goods and services supplied by the entities in the industry. This is measured by the aggregate revenues of all companies in the industry.

  Note: Gross Output as a measure, is different from the total consumer spend in the industry, and may vary based on the industry structure. However, the measures of "Gross Value Added", "Net Indirect Taxes" and "Employment" would remain the same, irrespective of industry structure. This has been further explained in the methodology section of this report.

- **Gross Value Added ("GVA"):** This factor measures the returns to labour and capital, i.e. the value of output generated by the entity's factors of production. This measure, along with the Net Indirect Taxes indicates the industry's contribution to the economy.

- **Net Indirect Taxes ("NIT"):** Indirect taxes (net of subsidies) paid by the industry.

- Employment: This measures the number of workers that are employed in the industry.

Table 1 provides a summary of the results of the economic impact study. The total Gross Output of the film and television industry is estimated to be **Rs. 92,645** crores (USD 20.4 billion) for the year 2008-09.

The total contribution (direct and indirect), defined as the sum of the "Gross Value Added" and "Net Indirect Taxes", of the film and television industry was **Rs. 28,305 crores** (USD 6.2 billion) for the year 2008-09, which approximately constitutes **0.532 % of the Gross Domestic Product ("GDP") of India.** In comparison, the contribution of the Indian advertising industry constitutes 0.4% of the GDP of India. The employment generated by the industry was estimated to be **18.30 lakh (1.83 million)** workers.

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Table 1: Economic Impact (Direct and Total) of the Indian Film and Television Industry

	Gross Output (Rs. crores)		Contribution (GVA + NIT) (Rs. crores)		Employment (in lakhs)	
	Direct	Total	Direct	Total	Direct	Total
Indian Film Industry	12,312	20,467	2,932	6,846	1.4	4.2
Indian Television Industry	42,545	70,723	7,348	20,873	4.2	13.9
U.S. / International Film Industry in India	492	818	147	304	0.029	0.14
Home Video Industry	384	637	161	283	0.003	0.089
Total	**55,733**	**92,645**	**10,587**	**28,305**	**5.7**	**18.3**

Source: Industry estimates and PricewaterhouseCoopers analysis

Table 2: Economic Impact (Direct and Total) of the Indian Film and Television Industry

	Gross Output (USD million)		Contribution (GVA + NIT) (USD million)		Employment (in thousands)	
	Direct	Total	Direct	Total	Direct	Total
Indian Film Industry	2,709	4,503	645	1,506	139	417
Indian Television Industry	9,361	15,561	1,617	4,592	424	1,386
U.S. / International Film Industry in India	108	180	32	67	3	14
Home Video Industry	84	140	35	62	0.3	9
Total	**12,263**	**20,384**	**2,329**	**6,228**	**567**	**1,826**

Source: Industry estimates and PricewaterhouseCoopers analysis
Note: exchange rate used Rs. 45.45/1 USD

From amongst the industries considered, the Indian television industry was estimated to have the largest economic contribution (Rs. 20,873 crores / USD 4.6 billion) and the highest employment generated (13.86 lakh / 1.38 million workers)

The film and television industry in India is one of the world's largest markets in terms of number of consumers and offers significant growth potential. Over the past few years the industry has experienced rapid double-digit growth and it is expected that this trend will continue in the future, thereby resulting in an increasing contribution to the Indian economy.

2. Methodology, Approach and Assumptions

2.1. Measures of Economic Impact

The measures of economic impact that have been considered for the purpose of this study are:

- **Gross Output:** This represents the total value of goods and services supplied by the entities in the industry. This is measured by the aggregate revenues of all companies in the industry.

  Note: While estimating Gross Output i.e. the aggregate revenues generated in the industry, there may exist an element of double counting. For example, if Firm A earned revenue of Rs. 100 crores and outsourced some activities to Firm B, for which it paid expenses of Rs. 50 crores (which is the revenue for Firm B), the combined Gross Output of Firms A and B would be Rs. 150 crores. However if Firm A were to conduct the activities itself and not outsource to Firm B, the Gross Output would be Rs. 100 crores (assuming Firm B earns revenue only from Firm A). Thus the Gross Output estimates could vary depending on the industry structure, however, the other measures- value added, Net Indirect Taxes and employment- would remain the same. The contribution to the Indian economy for a particular industry is measured by sum of the Gross Value Added parameter ("GVA") and Net Indirect Taxes ("NIT"), as explained below.

- **Gross Value Added ("GVA"):** This represents the returns to labour and capital, i.e. the value of output generated by an entity's factors of production. This measure, when combined with Net Indirect Taxes, indicates the industry's contribution to the economy, and consists of the following:
  - **EBITDA (Earnings before Interest, Taxation, Depreciation and Amortization) -** This is the total operating profits generated by the firm, and represents the income generated by the firm's capital inputs.
  - **Wages -** This measure represents the income generated by the firm's labour inputs.

  Therefore, Gross Value Added = EBITDA + Wages

  Note: Subsidies and incentives provided to an industry should be deducted from the Gross Value Added because they are a cost to the economy. For the purpose of this study, we have considered only the net reported revenue / earnings which excludes subsidies. Therefore the Gross Value Added estimate does not require adjustment.

- **Net Indirect Taxes ("NIT"):** Indirect taxes (net of subsidies) paid by the industry, are a contribution to the economy. This includes taxes such as Entertainment Tax, Service Tax, Value Added Tax etc.

- **Employment:** This measures the number of workers that are employed in the industry.

- **Multiplier Effect:** In addition to the direct impact of the industry, which is measured by estimating the economic indicators for the industry participants, there is also an indirect impact on other external sectors. This indirect impact is also called the multiplier effect, and together with the direct impact gives the total impact of the industry.

2.2. Our Approach

- **Gross Output and Gross Value Added:** For the purpose of this study, we have followed a bottom-up approach to estimate the economic measures of **Gross Output and Gross Value Added.** This approach involves the following:
  - The industry / sector value chain is considered, and the economic contribution is calculated for each stage of the value chain.
  - Total industry revenue and percentage break-up/flow of revenue for each stage is estimated based on PwC information / industry sources and reports.
  - For each stage, the following measures of economic activity are calculated:
    - Gross Output = Revenue
    - Gross Value Added = EBITDA + Wages
  - The above data is calculated for a sample of organisations based on information available in the public domain.
  - Based on the sample estimates, the values are extrapolated for the stage-wide Gross Output and Gross Value Added.

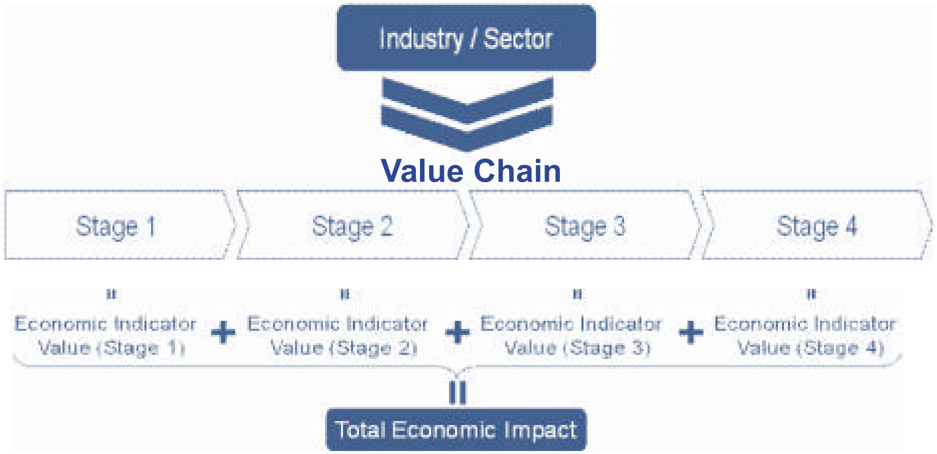


Figure 2: Overview of Approach (Calculating the Gross Output and Gross Value Added)

- **Indirect Taxes:** As certain segments of the film and television industry are largely unorganised, it is difficult to estimate the indirect taxes contributed by the industry. Accordingly, Entertainment Tax estimates have been arrived at based on the actual / budgeted collections by the Government.

  Other tax categories such as VAT and Service Tax have not been considered in detail, as the industry-wise tax collections for these categories are not available. In such cases, estimates have been arrived at based on an extrapolation of information obtained through discussions with industry representatives.

  In certain cases, due to non-availability of relevant information, the estimates of indirect taxes have been derived based on the overall "Net Indirect Taxes (NIT) to Gross Output" ratio calculated from the **"Input Output Transactions Table (2003-04)" - Matrix 1 (Provided by the Central Statistical Organisation)** for the sector classified as IOTT Sector No: 129 ("Other Services"). This classification covers recreation & entertainment, radio and TV broadcasting services, among others. This ratio has then been applied to the relevant industry Gross Output estimates.

  Note: The assumptions for different segments are listed in section 2.4. These estimates may vary significantly from actual tax collections, especially for segments with a large number of unorganised players.

- **Employment:** For estimating the employment generated by each sector, the overall average Gross Value Added ("GVA") per worker has been considered and applied to the industry GVA to arrive at the employment generated. The estimate for average GVA per worker has been obtained from the **National Sample Survey Organization ("NSSO") Report on "Service Sector in India (2006-07) - Economic Characteristics of Enterprises" (63rd Round)** for "National Industrial Classification (2004): Code 92 (Recreational, Cultural and Sporting Activities)". Since the Indian film and television industry is primarily based in urban India, the ratios relevant to the "Urban" sector have been considered.

  Note: The NSSO report estimates that at an overall level, 90 percent of the workers in urban India are full-time, and 10 percent are part-time workers.

  In some cases where industry information is available, the direct employment generated has been estimated based on the ratio of average number of employees per Rs. lakh of revenue. This ratio has been derived from the sample information obtained for select companies within a particular segment, and then extrapolated for the overall segment revenue, to arrive at the employment generated.

  Note: The assumptions for different segments are listed in section 2.4.

- **Indirect Impact:** The **Gross Output multiplier** for the industry has been obtained from the **"Input Output Transactions Table (2003-04)" - Matrix 7: Leontif Inverse Matrix (Provided by the Central Statistical Organization)** for the sector classified as IOTT Sector No: 129 ("Other Services"). This classification covers recreation & entertainment, radio and TV broadcasting services, among others.

  The indirect impact on **GVA** and **NIT** has been calculated based on the "GVA to Output" ratio and the "NIT to Output" ratio respectively, also derived from the Input Output Transactions Table (2003-04) - Matrix 1.

The indirect impact of employment has been estimated, assuming the overall average GVA per worker for all the service categories, obtained from the **National Sample Survey Organization Report ('NSSO") on "Service Sector in India (2006-07) - Economic Characteristics of Enterprises" (63rd Round).** The ratios relevant to the "Urban" sector have been considered.

Note: The estimation of indirect impact based on the above approach is only a broad approximation, as industry specific multipliers are not available. Multipliers from other countries have not been considered, as the structure and functioning of the Indian film and television industry is quite unique, as compared to other developed nations and hence not comparable.

- The study has been based on company performance for the financial year 2008-09. However the figures for industry consumer and advertising spend used in the report, pertain to the calendar year 2008. We have assumed these calendar year figures to be representative of the industry size in the financial year as well.
- The exchange rate considered for conversion to US Dollars is Rs. 45.45 /USD, the average exchange rate for the Financial Year 2008-09. Currency figures are rounded off to the nearest crores / million.
- India's GDP for 2008-09, at current prices was **Rs. 53,21,753 crores.** As the study is based on company performances for the financial year 2008-09, we have used the GDP for 2008-09 and not 2009-10.

(Source: Economic Survey 2008-09, Ministry of Finance, Government of India)

2.3. Information Collation and Validation

For this study, the collation and validation of information, was based on the following steps:

1. Collection of information (Revenues, EBITDA, Net Indirect Taxes and Wages) for listed Indian companies through Company Annual Reports and Analyst Presentations.
2. Collection of information for U.S. / International studios through information shared by MPDAI members.
3. Collection of information on overall industry size and trends from PwC databases and other industry reports.
4. Aggregation of information obtained, to arrive at overall industry-related assumptions, relevant for the study.
5. Discussions with industry members, experts and professionals to validate the assumptions arrived at, as well as to obtain inputs on information gaps.
6. Collection of information on indirect taxes and employment, through available government reports.
7. Aggregation of validated information and assumptions, to derive the overall economic contribution

***Note:** We have not independently verified the accuracy of information provided to us, and have not conducted any form of audit in respect of organisations that have provided the information necessary to undertake this assignment. Accordingly, we express no opinion on the reliability, accuracy, or completeness of the information provided to us and upon which we have relied. The statements and analysis expressed herein have been made in good faith, and on the basis that all information relied upon is true and accurate in all material respects, and not misleading by reason of omission or otherwise. The statements and analysis expressed in this report are based on information available as at the date of the report. We reserve the right, but will be under no obligation, to review or amend our Report, if any additional information, which was in existence on the date of this report was not brought to our attention, or subsequently comes to light.*

2.4. Key Assumptions / Limitations

- **Overall**
  - Estimates of indirect economic contribution would be difficult to state due to a lack of appropriate multipliers in India. As a result, approximations from the broader industry classification have been used on an overall basis.
  - The effect of piracy has not been considered in the scope of this study.

- **Indian Film Industry**
  - Estimates of Entertainment Tax, is based on the overall budgeted Entertainment Tax collection by the Government, as per Indian Public Finance Statistics Report 2008-2009. Based on our discussions with industry representatives, we estimate that approximately 80-90 percent of total Entertainment Tax collections are from the film exhibition segment.

    There may be an additional impact on indirect taxes from other categories such as VAT and Service Tax - however, due to the absence of relevant industry-wise information, this has not been considered in the analysis for this segment.
  - The impact of revenue generated from the film music industry has been considered as a part of the ancillary revenues earned by the film producer. The remaining part of the value chain of the Indian music industry has not been covered in this analysis.

- o Direct employment estimates have been arrived at based on the average Gross Value Added per worker for "National Industrial Classification (2004): Code 92 (Recreational, Cultural and Sporting Activities)" from the National Sample Survey Organization ("NSSO") Report on "Service Sector in India (2006-07) - Economic Characteristics of Enterprises" (63rd Round).

- **Indian Television Industry**
  - o Film production, has not been considered, as part of the television industry value chain, inspite of being a source of content for television. The value-added and output from this segment has been considered in the "Indian film industry" economic contribution. Therefore, production houses producing only TV content have been considered.
  - o There are multiple channels available, covering multiple languages and genres. Since the variety of channels is extensive, large players with a portfolio of channels across multiple genres and languages have been assumed to be representative of the overall broadcasting segment.
  - o Due to its unorganised nature, economic measures such as revenue, operating margins and wages for the Local Cable Operators ("LCOs") have been derived based on discussions with industry experts.
  - o The overall share of subscription revenue for cable television, between Broadcasters, Multi-System Operators and Local Cable Operators, has been assumed based on the prescribed revenue share arrangement by TRAI for CAS areas. The revenue share arrangement in non CAS areas has not been considered separately, as it may vary significantly on location or operator basis.
  - o Indirect taxes have been assumed at 2 percent of revenue based on the NIT / Output Ratio for the overall sector 129 ("Other Services") in the Input Output Transactions Table (2003-04), developed by the Central Statistical Organization.
  - o Direct employment estimates have been arrived at based on the average Gross Value Added per worker for "National Industrial Classification (2004): Code 92 (Recreational, Cultural and Sporting Activities)" from the National Sample Survey Organization ("NSSO") Report on "Service Sector in India (2006-07) - Economic Characteristics of Enterprises" (63rd Round).

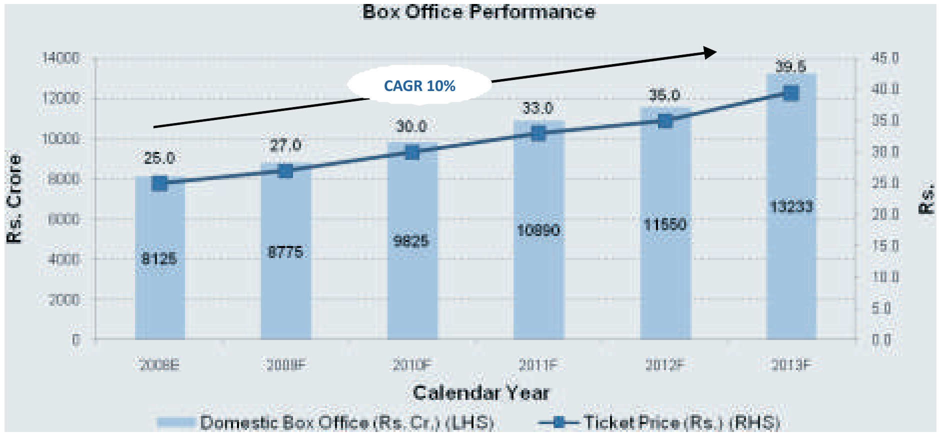
- **U.S. / International Film Industry in India**
  - o The average net profit margin earned by the International production houses has been deducted from the average EBITDA margin - for the calculation of EBITDA / GVA. This is based on the assumption that most of this profit is repatriated to the studios' home country.
  - o Estimation of indirect taxes is based on the average taxes paid as a percentage of revenue for a sample list of organizations, and subsequently extrapolated for the overall industry.
  - o Estimation of the employment generated in this industry, is based on the average number of employees per lakh of revenue, for the segments considered (based on a sample list of organizations).

- **Home Video Industry**
  - o This analysis covers the overall distribution of home video titles in India, considering all languages.
  - o For our analysis, the segments related to the retail sale and rental of CDs and DVDs has not been considered, as these segments are largely unorganised.
  - o Indirect taxes have been assumed at 2 percent of revenue based on the NIT / Output Ratio for the overall sector 129 ("Other Services") in the Input Output Transactions Table (2003-04), developed by the Central Statistical Organization.
  - o Estimation of the employment generated in this industry, is based on the average number of employees per lakh of revenue, for the segments considered (based on a sample list of organizations).

3. The Indian Film Industry

3.1. Overview

On an overall basis, the size of the Indian film industry is estimated at Rs. 10,700 crores (USD 2.5 billion) in 2008 and is expected to grow at a CAGR of 11.5% over the period 2008-2013. Out of Rs. 10,700 crores, domestic box-office collections accounted for Rs. 8,130 crores (USD 1.8 billion) with overseas box-office, ancillary rights and home video making up the balance.



Source: PricewaterhouseCoopers' Indian Entertainment & Media Outlook 2009

Figure 3: Projected Box Office Performance for the Indian Film Industry

Domestic box office collections are projected to increase to Rs. 13,000 crores (USD 2.8 billion) by the year 2013, growing at a CAGR of 10%. This growth is primarily attributable to the growth in average ticket prices, projected to increase from Rs. 25 (USD 55 cents) in 2008 to Rs. 40 (USD 88 cents) by 2013.

Some of the key trends in this industry include:

- **Growing industry size -** The growth in India's per capita income coupled with an increasing tendency to spend on discretionary items has led to a larger audience and consumption market for the industry. As a result, many new players have entered this segment and the existing players are focusing on expanding their own portfolio. For example, Yash Raj Films, one of India's most well known and respected film production houses, has recently started production of television serials for Sony Television.

- **Largest number of movie releases in the world -** India is one of the largest producers of films in the world, in terms of number of films produced. This coupled with the growing international movie market in India has led to the Indian consumer having access to a huge variety of content.

- **Piracy impacting returns[1] -**The Indian film industry is significantly impacted by online piracy. A study undertaken by Motion Picture Distributors Association (MPDAI) has put India among the top ten countries in the world, where online piracy is at its highest. Hollywood (English Films), Bollywood (Hindi Films), Tollywood (Telugu Films) and Kollywood (Tamil Films) are the prime victims of the crime. Research has shown that online piracy of film and television content in India is mainly through file sharing networks. For example, Vishal Bharadwaj's Kaminey was downloaded a record number of times (estimated at 350,000 times) in India and abroad. The situation is equally bad for regional language films with 88 percent of Telugu and 80 percent of Tamil films being downloaded from the internet.

- **U.S. / International studios in India -** Hollywood and other international players have been making determined efforts to enter and consolidate their positions in India. Their endeavours have ranged from joint productions (for example Warner Bros. joint production with Ramesh Sippy for Chandni Chowk to China , Walt Disney's joint production with Yash Raj Films for Roadside Romeo and others) to international films being released in English and regional languages. Hollywood/ international efforts to dub their films in Indian regional languages has been an attempt to reach out to a wider audience and boost box-office numbers and this effort has been very successful in the recent past.

[1] Source:
- www.businessofcinema.com

- **Exhibition facilities -** The expansionary tendencies of the multiplexes and the growing demographic trend of increasing consumer spend on entertainment has led to multiplexes expanding into other properties. However, the recession in FY 2008-09 and the high cost of developing property has led to a slow down in the rate of expansion with different operating models (like managing mall properties) being explored. The ability of better facilities to attract audiences has also caused many single screens to upgrade their premises.

- **Better realization for producers in FY 2009-10 -** The agreement of higher revenue share from exhibitors post the exhibitor-producer strike as well as more accurate reporting of ticket sales has led to improved realization for producers. With many exhibitors now opting for digitization of content and computerized ticketing, the reduction in under reporting of revenue and cost of prints has improved profitability. Additionally, the digitization of content has led to an ability to service a large geography in a timely manner which has helped in reducing piracy.

- **Entertainment Tax exemptions -** The Entertainment Tax exemption provided by the State Governments has served as an incentive for multiplex expansion and as a result, most multiplex properties have been functioning under subsidies on Entertainment Tax. With the expiry of these subsidies, we can expect a drop in realisations over the next 5 years creating changes in the profit and loss account structure of such exhibitors.

- **New distribution platforms -** With digital content gaining ground as the preferred media, it is natural that other digital delivery mechanisms would also be explored. Coupled with an audience willing to experience new delivery streams, this has lead to a convergence of media enabling content on mobile phones, MP3 players and computers. This in turn has led to higher realizations for content producers and added new players in the distribution chain.

3.1.1. Regional Films in India

Mainstream cinema in India is dominated by Hindi language films which typically make up a significant portion of total domestic box-office collections. However, over the last few years, regional language films have been growing in popularity with releases in a greater number of theatres both within and outside the Indian Territory.

Within regional languages, the South-Indian segment is an important market in terms of number of film releases with the four southern states comprising Andhra Pradesh, Tamil Nadu, Karnataka and Kerala together accounting for a majority of the total number of film releases in India. Other regional language markets in India include films made in Bengali, Bhojpuri, Marathi, Punjabi etc. The total domestic box-office collections from regional language films in India are estimated to be about **Rs. 1,508 crores.**

3.2. Economic Contribution of the Indian Film Industry

3.2.1. Direct Contribution

The direct contribution of the Indian film industry is estimated at Rs. 2,931 crores (USD 645 million), comprising of Gross Value Added ("GVA") amounting to Rs. 2,132 crores (USD 469 million) and Net Indirect Taxes being Rs. 800 crores (USD 176 million). The Gross Output (Total Revenue) of the industry is estimated to be Rs. 12,312 crores (USD 2.7 billion).

In our analysis, we estimate that Entertainment Tax paid by the industry to be Rs. 1,010 crores (USD 222 million) as per Indian Public Finance Statistics Report 2008 - 09. Based on our discussions with industry representatives, we estimate that approximately 80-90 percent of total Entertainment Tax collections are from the film exhibition segment. There may be an additional impact on indirect taxes from other categories such as VAT and Service Tax - however, due to the absence of relevant industry-wise information, this has not been considered in the analysis for this segment.

The following table highlights the contributions across the value chain:

Table 3: Direct Impact of the Indian Film Industry

	Gross Output		EBITDA		Wages		Gross Value Added (GVA)= EBITDA + Wages	
	Rs. crores	USD million	Rs. crores	USD million	Rs. Crores	USD million	Rs. crores	USD million
Film Production and Distribution	3,201	704	463	102	241	53	704	155
Film Exhibition								
Hindi	7,393	1,627	701	154	466	103	1,167	257
Tamil	711	156	62	14	40	9	103	23
Telugu	579	127	51	11	33	7	84	18
Kannada	29	6	2	1	2	0	4	1
Others	400	88	35	8	35	8	70	15
Total	**12,312**	**2,709**	**1,315**	**289**	**817**	**180**	**2,132**	**469**

The total value added by the film industry is taken as the sum of GVA as above (Rs 2,132 crores) and Net Indirect Taxes (NIT) paid. Based on the analysis of available information, the NIT paid by the film industry is estimated to be Rs. 800 crores (USD 1.7 billion).

Thus, total Direct Economic Contribution (GVA + NIT) of the Indian Film Industry is estimated to Rs. 2,931 crores (USD 645 million).

Table 4: Direct Economic Contribution of the Indian Film Industry

	Gross Output		Gross Value Added (GVA)		Net Indirect Tax (NIT)		Employment
	Rs. crores	USD million	Rs. crores	USD million	Rs. crores	USD million	
Indian Film Industry	12,312	2,709	2,132	469	800	176	1.4

3.2.2. Total Contribution

Using the methodology outlined in section 2 of the report, the indirect and total impact of the film industry is estimated to be as below:

Table 5: Total Contribution of the Indian Film Industry (Rs. Crores)

	Gross Output		Contribution (GVA + NIT)		Employment
	Rs. Crores	USD Million	Rs. Crores	USD Million	Lakhs
Direct Impact	12,312	2,709	2,932	645	1.4
Indirect Impact	8,154	1,794	3,914	861	2.8
Total Impact	**20,467**	**4,503**	**6,846**	**1,506**	**4.2**

Table 6: Multipliers for Indirect Impact of the Indian Film Industry

	Gross Output	GVA/Output	NIT/Output	GVA/Worker (Rs. lakhs)
Multipliers / Ratios	1.66	0.46	0.02	1.34

- The Gross Output multiplier has been obtained from the "Input Output Transactions Table (2003-04)" - Matrix 7: Leontif Inverse Matrix (Provided by the Central Statistical Organization) for the sector classified as IOTT Sector No: 129 ("Other Services").
- The "GVA to Output" ratio and the "NIT to Output" ratio has been derived from the "Input Output Transactions Table (2003-04)" - Matrix 1: Leontif Inverse Matrix (Provided by the Central Statistical Organization) for the sector classified as IOTT Sector No: 129 ("Other Services").

- The average GVA per worker (considered for all service sectors) has been obtained from the National Sample Survey Organization Report ('NSSO") on "Service Sector in India (2006-07) - Economic Characteristics of Enterprises" (63rd Round).

Thus, the economic impact of the Indian film Industry is estimated at Rs. 6,846 crores (USD 1.5 billion) which is approximately 0.13% of GDP. The estimated total employment generated by the Indian film Industry is estimated at 4.2 lakh (0.42 million) workers.

4. The Indian Television Industry

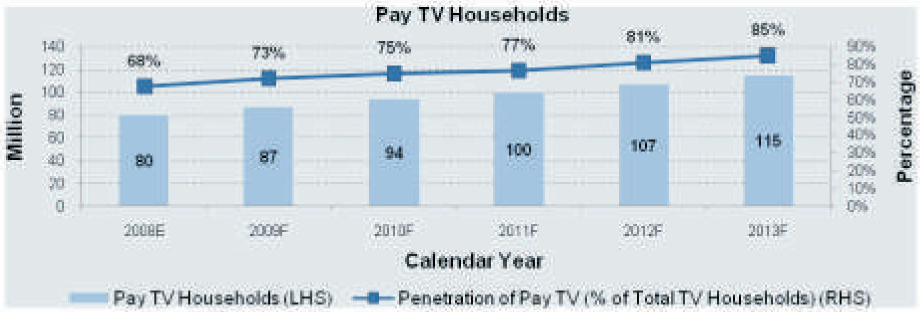
4.1. Overview

The Indian television industry has grown at a healthy rate of 17.4% (CAGR) over the period 2004-08, to an estimated size of Rs. 24,470 crores (USD 5.4 billion) in 2008. Of the total industry revenues, approximately 60 percent is contributed via television subscription income. The other major revenue contributor to the industry revenues is television advertising income. As shown in the figure below, the industry is projected to increase to a size of Rs. 42,000 crores (USD 9.2 billion) by 2013, thus growing at a CAGR of 11.4%.

Source: PricewaterhouseCoopers' Indian Entertainment & Media Outlook 2009

Figure 4: Revenue Trends for the Indian Television Industry

The growth in the television industry is driven primarily by the increasing penetration of DTH (Direct-to-home) and Cable television homes in the country. The number of pay-television households in India is projected to reach 115 million households by 2013 and projected to penetrate 85 percent of total television households in India. The average ARPU (average-realisation per user) is also projected to increase to Rs. 180 (USD 4) per month.



Source: PricewaterhouseCoopers' Indian Entertainment & Media Outlook 2009

Figure 5: Pay TV Households in India

Some of the key trends in this industry include:

- **Increased fragmentation in viewership:** Viewership, especially in the Hindi general entertainment genre, is increasingly getting fragmented as a result of a large number of such channels being broadcast in India. However, a few players continue to dominate the market, commanding a significant share of the industry segment revenues.

- **Increased competition amongst broadcasters:** With new channels being introduced at regular intervals, there is increased competition amongst broadcasters, for viewership and advertising revenue. This coupled with high content and marketing costs is expected to impact the profitability of broadcasters in the medium to long term.

- **Increasing penetration of DTH (Direct-to-home)**: There has been rapid growth of DTH subscribers in the last year, albeit from a relatively smaller base. This trend is expected to continue over the next few years. However, operating profits are still negative for the industry, due to high customer acquisition costs, and is expected to remain this way until a critical mass of subscribers is reached.

- **Acquisition of LCOs:** Cable television distribution in India is dominated by Local Cable Operators ("LCOs") which are largely unorganised in nature. During recent times, Multi-System Operators ("MSOs") have started acquiring LCOs to gain greater control over the distribution network and prevent revenue leakage.

4.2. Economic Contribution of the Indian Television Industry

4.2.1. Direct Contribution

The direct contribution of the Indian television industry is estimated at Rs. 7,348 crores (USD 1.6 billion), comprising of Gross Value Added ("GVA") amounting to Rs. 6,497 crores (USD 1.4 billion) and Net Indirect Taxes being Rs. 851 crores (USD 187 million). The Gross Output (Total Revenue) of the industry is estimated to be Rs. 42,545 crores (USD 9.4 billion).

The television broadcasting segment is the largest contributor, in terms of GVA, primarily due to higher operating margins. While the television distribution segment is the largest in terms of Gross Output, but due to significantly lower operating margins, the GVA of the segment is relatively low. However, the distribution segment contributes the most, in terms of wages. The television production segment, a relatively smaller segment, is low both in terms of Gross Output and GVA. The following table highlights the contributions across the value chain:

Table 7: Direct Impact of the Indian Television Industry

	Gross Output		EBITDA		Wages		Gross Value Added (GVA)= EBITDA + Wages	
	Rs. Crores	USD Million	Rs. Crores	USD Million	Rs. Crores	USD Million	Rs. Crores	USD Million
TV Production	1,500	330	120	26	60	13	180	40
TV Broadcasting	15,283	3,363	3,057	673	1,375	303	4,432	975
TV Distribution	25,763	5,668	(149)	-33	2,033	447	1,885	415
Total	**42,545**	**9,361**	**3,028**	**666**	**3,469**	**763**	**6,497**	**1,429**

The total value added by the television industry is taken as the sum of GVA as above (Rs 6,497 crores) and Net Indirect Taxes (NIT) paid. Based on the extrapolation of available information, the NIT paid by the television industry is estimated to be Rs. 851 crores (USD 187 million).

Thus, total Direct Economic Contribution (GVA + NIT) of the Indian Television Industry is estimated at Rs. 7,348 crores (USD 1.6 billion).

Table 8: Direct Economic Contribution of the Indian Television Industry

	Gross Output		Gross Value Added (GVA)		Net Indirect Tax (NIT)		
	Rs. crores.	USD million	Rs. crores.	USD million	Rs. crores.	USD million	lakhs
Indian Television Industry	42,545	9,361	6,497	1,429	851	187	4.24

4.2.2. Total Contribution

Using the methodology outlined in section 2 of the report, the indirect impact of the television industry is estimated to be as below:

Table 9: Economic Impact of the Indian Television Industry

	Gross Output		Contribution (GVA + NIT)		Employment
	Rs. crores.	USD million	Rs. crores.	USD million	Lakhs
Direct Impact	42,545	9,361	7,348	1,617	4.24
Indirect Impact	28,178	6,200	13,525	2,976	9.62
Total Impact	**70,723**	**15,561**	**20,873**	**4,592**	**13.86**

Table 10: Multipliers for Indirect Impact of the Indian Television Industry

	Gross Output	GVA/Output	NIT/Output	GVA/Worker (Rs. lakhs)
Multipliers / Ratios	1.66	0.46	0.02	1.34

- The Gross Output multiplier has been obtained from the "Input Output Transactions Table (2003-04)" - Matrix 7: Leontif Inverse Matrix (Provided by the Central Statistical Organization) for the sector classified as IOTT Sector No: 129 ("Other Services").

- The "GVA to Output" ratio and the "NIT to Output" ratio has been derived from the "Input Output Transactions Table (2003-04)" - Matrix 1: Leontif Inverse Matrix (Provided by the Central Statistical Organization) for the sector classified as IOTT Sector No: 129 ("Other Services").

- The average GVA per worker (considered for all service sectors) has been obtained from the National Sample Survey Organization Report ('NSSO") on "Service Sector in India (2006-07) - Economic Characteristics of Enterprises" (63rd Round).

Thus, the economic impact of the Indian television industry is estimated at Rs. 20,873 crores (USD 4.6 billion) which is approximately 0.39% of GDP. The estimated total employment generated by the Indian television industry is estimated at 13.86 lakh (1.38 million) workers.

5. U.S. / International Film Industry in India

5.1. Overview

The U.S. / International film industry in India had an estimated size of Rs 300 crores (USD 66 million) in FY 09 and is expected to increase steadily going forward. This industry revenue consists of the box office collections of U.S. / International films released in India in FY 09.

Some of the key trends in this industry are[2] :

- U.S. / International cinema appealing to Indian masses -U.S. / International films are making a mark with the Indian masses and are no longer confined to audiences in metro and large cities. Dubbed versions of U.S. / International films are appealing to the Indian masses staying in small towns and villages.

    - 2012 turned out to be a huge hit in India in 2009, with box office collections of over Rs 90 crores, surpassing the previous highest grossing Hollywood film in India, Spiderman-3.The film had the widest release ever for a Hollywood film with a total count of 766 prints in English, Hindi, Tamil and Telugu. The film proved successful in both urban multiplex cinemas and traditional single screen cinemas in small towns and villages.
    - For Spider-Man 3, Sony had released 558 prints across the country. Of these, 261 prints were in Hindi, 162 in English, 156 in Tamil and Telugu, three special IMAX prints, and six, in Bhojpuri. It was a first for a Hollywood movie. A three-month long marketing campaign covered nine metros and nearly 70 small towns. The Bhojpuri version of the movie ran to packed houses at halls in Bihar's interiors.
    - Hollywood blockbuster Avatar, has grossed over Rs 100 crores in India, making it the biggest ever film for Fox in India after breaking Titanic's record collections of Rs. 55 crores. As discussed below, Avatar heralds the trend for viewers to pay higher prices for a 3D movie experience.

- **Children films -** A recent trend has been the release of children films by U.S. / International studios in India in the summer season and their success at the box office. Bollywood produces lesser number of such children films where Hollywood has taken lead in India. Last year, the two stars of Hollywood for Indian summer were Harry Potter and Night at the Museum.
    - Night at the Museum, a 20th Century Fox release, grossed Rs 2.3 crores in India over its opening weekend and about Rs 4 crores overall.
    - Harry Potter, an all time children's favourite, grossed about Rs. 20 crores. Warner Bros released Harry Potter & the Half Blood Prince with 350 prints and 450 screens in India.

[2] Sources:
- www.businessofcinema.com
- www.livemint.com
- www.boxofficemojo.com
- www.exchange4media.com

Past Trends*[3]*:

- **Global players' entry into the Indian Film business -** Walt Disney produced and released its first film in India in 2008 with Yash Raj Films, Roadside Romeo, a full-length animation feature film. Tamil superstar Kamal Haasan also starred in two Disney productions - Marmayogi and 19 Steps. Disney also bought the home video rights of Aamir Khan's directorial debut Taare Zameen Par for release in the US.

- Warner Bros released its film made in association with Ramesh and Rohan Sippy: Chandni Chowk to China in January 2009. It ventured in India as distributors with the film Saas, Bahu Aur Sensex. Warner Bros also signed a three-movie deal with People Tree Films and a one film tieup with Tandav Films. The production house has also brought in internationally acclaimed Indian filmmaker Shekhar Kapur to direct a USD 200 million Hollywood fantasy-epic Larklight.

- Fox STAR Studios tied up with Vipul Shah for a multiple-film exclusive deal.

- Mexican global multiplex operator Cinepolis announced plans to invest Rs 1,700 Cr in India for its film exhibition business over the next seven years. It has already established an Indian subsidiary that is in talks with mall developers for opening 500 movie screens by 2016. In the first phase of expansion, the company plans to invest Rs 370 Cr for opening 110 screens across eight locations. In July 2009, the exhibition chain tied up with Advance India Projects Limited (AIPL), to set up its property in their mall project in Amritsar.

Future trends*[3]*:

- **3D movies -** The success of Avatar has paved the way for 3D cinema in India. 3D presentations have accounted for 81 percent of Avatar's gross box office collection. That is by far the largest 3D gross ever, and "Avatar" is effectively most people's first sampling of the new 3D technology. With the release of Avatar, 3D screens in India have seen a rise in cities like Mumbai, Delhi, Pune, Bangalore, Chennai and Hyderabad as well as in smaller centres like Coimbatore, Amritsar, Kerala, Jaipur and Ahmedabad.

[3] Sources:
- www.businessofcinema.com
- www.livemint.com
- www.boxofficemojo.com
- www.exchange4media.com

5.2. Economic Contribution of the U.S. / International Film Industry in India

5.2.1. Direct Contribution

The direct contribution of the U.S. / International film industry is estimated at Rs. 147 crores (USD 32 million), comprising of Gross Value Added ("GVA") amounting to Rs. 97 crores (USD 21 million) and Net Indirect Taxes being Rs. 50 crores (USD 11 million). The Gross Output (Total Revenue) of the industry is estimated to be Rs. 492 crores (USD 108 million). The following table highlights the contributions across the value chain:

Table 11: Direct Impact of the U.S. / International Film Industry in India

	Gross Output		EBITDA		Wages		Gross Value Added (GVA)= EBITDA + Wages	
	Rs. crores	USD million	Rs. Crores	USD million	Rs. Crores	USD million	Rs. crores	USD million
Film Production and Distribution	98	22	5	1	7	1	12	3
Film Exhibition	394	87	50	11	36	8	85	19
Total	**492**	**108**	**55**	**12**	**43**	**9**	**97**	**21**

The total value added by the U.S. / International film industry in India is taken as the sum of GVA as above (Rs 97 crores) and Net Indirect Taxes (NIT) paid. Based on the extrapolation of available information, the NIT paid by the U.S. / International film industry in India is estimated to be Rs. 50 crores (USD 11 million).

Thus, total Direct Economic Contribution (GVA + NIT) of the U.S. / International Film Industry in India is estimated at Rs. 147 crores (USD 32 million).

MOTION PICTURE DIST. ASSOCIATION (India) Private Limited

Table 12: Direct Economic Contribution of the U.S. / International Film Industry in India

	Gross Output		Gross Value Added (GVA)		Net Indirect Tax (NIT)		Employment
	Rs. crores	USD million	Rs. crores	USD million	Rs. crores	USD million	lakhs
International Film Industry	492	108	97	21	50	11	0.029

5.2.2. Total Contribution

Using the methodology outlined in section 2 of the report, the indirect impact of the U.S. / International film industry in India is estimated to be as below:

Table 13: Economic Impact of the U.S. / International Film Industry in India

	Gross Output		Contribution (GVA + NIT)		Employment
	Rs. crores	USD million	Rs. crores	USD million	lakhs
Direct	492	108	147	32	0.029
Indirect	326	72	157	34	0.11
Total	**818**	**180**	**304**	**67**	**0.14**

Table 14: Multipliers for Indirect Impact of the U.S. / International Film Industry in India

	Gross Output	GVA/Output	NIT/Output	GVA/Worker (Rs. lakhs)
Multipliers / Ratios	1.66	0.46	0.02	1.34

- The Gross Output multiplier has been obtained from the "Input Output Transactions Table (2003-04)" - Matrix 7: Leontif Inverse Matrix (Provided by the Central Statistical Organization) for the sector classified as IOTT Sector No: 129 ("Other Services").

- The "GVA to Output" ratio and the "NIT to Output" ratio has been derived from the "Input Output Transactions Table (2003-04)" - Matrix 1: Leontif Inverse Matrix (Provided by the Central Statistical Organization) for the sector classified as IOTT Sector No: 129 ("Other Services").

- The average GVA per worker (considered for all service sectors) has been obtained from the National Sample Survey Organization Report ('NSSO") on "Service Sector in India (2006-07) - Economic Characteristics of Enterprises" (63rd Round).

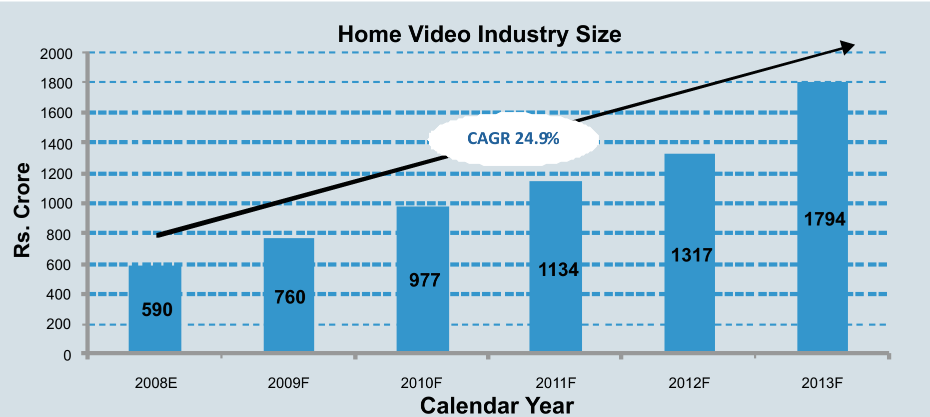
Thus, the economic impact of the U.S. /International film industry in India is estimated at Rs. 304 crores (USD 67 million) which is approximately 0.006% of GDP. The estimated total employment generated by the U.S. /International film industry in India is estimated at 0.14 lakh (0.01 million) workers.

6. Home Video Industry

6.1. Overview

The Home Video market has grown at a healthy rate of 14.3% over the period 2004-2008, to an estimated size of Rs. 590 crores (USD 130 million) in 2008. As shown in the figure below, the industry is projected to increase to a size of Rs. 1,794 crores (USD 395 million) by 2013, thus growing at a CAGR of 24.9%.

The home video market is driven primarily by new film content in Hindi (informally referred to as 'Bollywood' films) and other Indian languages.



Source: PricewaterhouseCoopers' Indian Entertainment & Media Outlook 2009

Figure 6: Growth of Home Video Industry in India

Some of the highlights of this industry are:

- **Changing Business Models -** The home video market is converting to sell-through from rental, which constituted 100 percent of sales in 2004. By 2013, sell-through is expected to constitute 92 percent of the market. Sell-through spending will jump from about Rs. 180 crores (USD 40 million) in 2008 to about Rs.1,650 crores (USD 363 million) in 2013. The migration to sell-through is leading to sharp declines in rental spending. Rental spending dropped by 41 percent in 2008.

- This change in business models was spurred by the entry of Moser Baer in the market in 2007. Moser Baer slashed the retail prices of its DVDs and VCDs to the levels at which pirated products were sold and rented. As a result of this disruptive strategy, other players in the business were also forced to slash their prices to similar levels as Moser Bear. This boosted the sell-through market as DVDs were now available to consumers at low prices.

- This severely impacted on margins as the content acquisition prices for home video were at similar levels. However, the retail prices are now being increased to appropriate levels and the home video market is expected to grow at a CAGR of 25 percent over the next five years.

- The online rental market is growing steadily but is still at a significantly smaller scale as compared to the physical sell-through model. It does not pose a serious threat to physical sales over the next five years.

- Piracy is the biggest risk the home video industry faces. Piracy is being curbed with digitisation, shortening of the release window between theatre and home video release and government regulation such as the Copyright Act.

- **Key Players -** The home video market is dominated by a few large participants such as Moser Baer, EROS, Big Home Video and Excel Home Video.
    - Moser Baer - Moser Baer is one of India's leading technology companies with interests in storage media, photovoltaic, entertainment and IT peripherals, and consumer electronics. It currently offers home video titles in 18 major Indian languages and has acquired the rights for close to 10,000 titles. It is estimated to hold approximately 33 percent market share.
    - EROS International - Eros International plc is a global player in the rapidly expanding Indian media and entertainment arena. Eros not only produces and commissions film projects but also globally distributes films across all formats including cinemas, digital and home entertainment and television syndication. Eros has a catalogue of over 1,900 film titles and about 20 percent market share.

- o Big Home Video - BIG Music & Home Entertainment is a Reliance Big Entertainment Company. It started operations in 2008. The company is the exclusive licensee for distribution & marketing of all titles on Home Video for Warner Home Video, Paramount Home Entertainment, Dreamworks Studios and Universal Studios Home Entertainment. The company also forayed into regional home video by acquiring selective prestigious titles. It has built and consolidated an impressive depth and width in distribution, along with localization of International content, with dubbing of English films in 6 regional languages.
- o Excel Home Video - Excel Home Videos is the home entertainment distribution and marketing arm of Excel Productions Audiovisuals Pvt. Ltd. Excel is focussed on international movies and holds about 40 percent market share in that segment.
- o Reliance BigFlix, Showtime and Moviemart are movie rental companies.

- **Future Trends -** Over the longer run, growth in Blu-ray high definition ("HD") videos will offset a declining DVD market and propel overall sell-through. Rental company Movie Mart launched its online Blu-ray disc renting and selling facility in 2009. It is the first online Blu-ray discs renting website in India.

6.2. Economic Contribution of the Home Video Industry

6.2.1. Direct Contribution

The direct contribution of the home video industry is estimated at Rs. 161 crores (USD 35 million), comprising of Gross Value Added ("GVA") amounting to Rs. 153 crores (USD 34 million) and Net Indirect Taxes being Rs. 8 crores (USD 1.7 million). The Gross Output (Total Revenue) of the industry is estimated to be Rs. 384 crores (USD 84 million). The following table highlights the contributions across the value chain:

Table 15: Direct Economic Contribution of the Home Video Industry

	Gross Output		EBITDA		Wages		Gross Value Added (GVA) = EBITDA + Wages		Net Indirect Taxes		Employment
	Rs. crores	USD million	Rs. crores	USD million	Rs. crores	USD million	Rs. crores	USD million	Rs. crores	USD million	lakhs
Home Video Distribution	384	84	107	23	46	10	153	34	8	1.7	0.00272

The total value added by the home video industry is taken as the sum of GVA as above (Rs 153 crores) and Net Indirect Taxes (NIT) paid. Based on the extrapolation of available information, the NIT paid by the home video industry is estimated to be Rs. 8 crores (USD 1.7 million).

Thus, total Direct Economic Contribution (GVA + NIT) of the home video industry is estimated at Rs. 161 crores (USD 35 million).

6.2.2. Total Contribution

Using the methodology outlined in section 2 of the report, the indirect impact of the home video industry is estimated to be as below:

Table 16: Economic Impact of the Home Video Industry

	Gross Output		Contribution (GVA + NIT)		Employment
	Rs. Crores	USD million	Rs. crores	USD million	lakhs
Direct Impact	384	84	161	35	0.0027
Indirect Impact	254	56	122	27	0.087
Total Impact	**637**	**140**	**283**	**62**	**0.089**

Table 17: Multipliers for Indirect Impact of the Home Video Industry in India

	Gross Output	GVA/Output	NIT/Output	GVA/Worker (Rs. lakhs)
Multipliers / Ratios	1.66	0.46	0.02	1.34

- The Gross Output multiplier has been obtained from the "Input Output Transactions Table (2003-04)" - Matrix 7: Leontif Inverse Matrix (Provided by the Central Statistical Organization) for the sector classified as IOTT Sector No: 129 ("Other Services").

- The "GVA to Output" ratio and the "NIT to Output" ratio has been derived from the "Input Output Transactions Table (2003-04)" - Matrix 1: Leontif Inverse Matrix (Provided by the Central Statistical Organization) for the sector classified as IOTT Sector No: 129 ("Other Services").

- The average GVA per worker (considered for all service sectors) has been obtained from the National Sample Survey Organization Report ('NSSO") on "Service Sector in India (2006-07) - Economic Characteristics of Enterprises" (63rd Round).

Thus, the economic impact of the home video industry is estimated at Rs. 283 crores (USD 62 million) which is approximately 0.005% of GDP. The estimated total employment generated by the home video industry is estimated at 0.089 lakh (0.008 million) workers.